

REMARKS

Reconsideration of the application in view of the above amendments and the following remarks is requested. Claims 7-13 and 17-27 are in this application. Claims 17 has been amended. Claims 1-6 and 14-16 have been cancelled.

Applicant requests that the Examiner indicate whether the replacement sheets filed on May 23, 2005 (and received by the PTO on May 25, 2005) have been entered into the application. Applicant also requests the Examiner to initial and return to applicant a copy of the PTO Form 1449 that was filed on August 23, 2005 (and received by the PTO on August 29, 2005).

The Examiner rejected claims 17, 19, and 27 under 35 U.S.C. §102(e) as being anticipated by Wu et al. (U.S. Patent No. 6,413,832). For the reasons set forth below, applicant respectfully traverses this rejection as applied to amended claim 17.

Claim 17 recites:

“forming a trench in the insulation region, the trench having a side wall surface and a bottom surface, the side wall surface extending continuously from the top surface to the bottom surface, the side wall surface exposing only the insulation region;

“forming a layer of conductive material on the insulation region to contact the top surface of the insulation region, the side wall surface of the trench, and the bottom surface of the trench;

“etching the layer of conductive material to form an opening and a conductive spacer that contacts the side wall surface; and

“forming a layer of isolation material on the insulation region and the conductive spacer to contact the opening.”

In rejecting the claims, the Examiner pointed to the formation of trench 24 shown in FIG. 3 of Wu as constituting the “forming a trench” element of claim 17, and to the formation of a spacer polysilicon layer and the subsequent anisotropic etch to form polysilicon spacer 32, 34 shown in FIG. 4 of Wu as constituting the

"forming a layer of conductive material" and the "etching the layer of conductive material" elements of claim 17. (See also column 4, lines 2-6 of Wu.)

The formation of the spacer polysilicon layer, however, can not be read to be the "forming a layer of conductive material" as required by claim 17 because the spacer polysilicon layer is not formed to contact the top surface of the insulation region. As noted above, claim 17 requires that the trench be formed in an insulation region so that the side wall surface of the trench extends continuously from the top surface to the bottom surface. In addition, to remove any issue regarding clarity, claim 17 has also been amended to recite that the side wall surface exposes only the insulation region.

As shown in FIG. 3 of Wu, the side wall surface of trench 24 can be read to expose "only the insulation region" if the insulation region is read to consist of nitride layer 12, silicon dioxide layer 14, and silicon diode layer 16. Insulating layer 20 can not be read to be part of the insulation region required by claim 17 because to do so would mean that the side wall surface of trench 24 would also expose conductive layer 18. Thus, the top surface of the insulation region can only be read to be the top surface of silicon dioxide layer 16.

As taught by Wu, the spacer polysilicon layer is formed on insulating layer 20. As a result, it is not possible for the spacer polysilicon layer to be formed on the top surface of the insulation region as required by claim 17 because the spacer polysilicon layer is formed on insulating layer 20 and the top surface of the insulation region can only be read to be the top surface of silicon dioxide layer 16. Thus, claim 17 is not anticipated by the Wu reference. In addition, since claims 19 and 27 depend either directly or indirectly from claim 17, claims 19 and 27 are not anticipated by Wu for the same reasons as claim 17.

The Examiner objected to claims 18 and 20-26 as being dependent upon a rejected base claim, but indicated that these claims would be allowable if rewritten to be in independent form to include all of the limitations of the base claim and any

intervening claims. However, in view of the above discussion, claims 18 and 20-26 have not been amended at this time.

Thus, for the foregoing reasons, it is submitted that all of the claims are in a condition for allowance. Therefore, the Examiner's early re-examination and reconsideration are requested.

Respectfully submitted,

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